

Additional chart coverage may be found in CATP2, Catalog of Nautical Charts.  $SECTOR~\textbf{14} \longrightarrow CHART~INFORMATION$ 

### **SECTOR 14**

#### **UNGAVA BAY**

**Plan.**—This sector describes Ungava Bay and Akpatok Island. Akpatok Island is described first. Ungava Bay is then described, starting at its E entrance point, continuing in a clockwise direction, to its W entrance point.

#### **General Remarks**

**14.1** Immediately within the E entrance to Hudson Strait, the S shore is indented by Ungava Bay, an extensive bay that extends inland for 140 miles in a S direction. The bay is entered between Flat Island, on the E, and Cape Hopes Advance, about 140 miles to the WNW.

The coastline of Ungava Bay, in sharp contrast to the shores of Hudson Strait, is low rolling country rising gradually inland to about 152m. The tree line lies close to the head of Ungava Bay.

Akpatok Island, in the NW part of the bay, is the only large island in the area.

**Tides—Currents.**—Reports indicate that there are no strong tidal currents in the middle of Ungava Bay, but within 12 to 15 miles of the E and W sides the currents are strong and reverse their direction with the incoming and outgoing tide.

Tidal information for Ungava Bay is limited; however, there are very high tides in the bay. In Leaf Bay, the maximum recorded spring rise was 16.7m, the highest in the world.

**Regulations.**—See paragraph 13.6 for information regarding Arctic Canada Traffic System (NORDREG CANADA). Mariners should be aware of the advantages of reporting to this system which is a voluntary VTS system covering the waters N of 60°N and all of Ungava Bay, Hudson Strait, and Hudson Bay.

#### **Akpatok Island**

**14.2 Akpatok Island** (60°24'N., 68°05'W.) lies 49 miles SE of Cape Hopes Advance. It is the largest island in Ungava Bay. The island is 25 miles long and 15 miles across at its widest part. Its high point, 285m high, rises near the center of the island. The coast line is generally free of indentations, and from seaward appears as a steep vertical wall, 122m to 183m high, except for a small stretch on the NE side where the coast gives way to a low shingle shoreline. Small patches of snow, which are conspicuous from seaward, remain in the deeper gullies throughout the summer.

From offshore, the island appears as a line of unbroken vertical cliffs, backed by the gently rounded plateau of the interior. In summer, the cliffs are pale yellow in color. The island is uninhabited.

**Tides—Currents.**—Along the E and W coasts of the island, the flood current sets in a SW direction, at a maximum rate of 3 to 4 knots at springs. The ebb current sets NE at the same rate.

**Anchorage.**—Anchorage, in 9.1 to 27.4m, good holding ground, exposed to all but offshore winds, is available almost anywhere within 0.4 mile of the cliffs.

**Caution.**—Shoals extend up to 0.2 mile seaward off the N, E, and S points of the island. It is dangerous to approach closer than 0.2 mile to the shore because of projecting rocky ledges at the base of the cliffs.

#### **Ungava Bay—East Side**

14.3 Between Jackson Island, close off the SW extremity of Killinek Island, and the George River, 114 miles SW, the E coast of Ungava Bay is broken by many bays and inlets, with numerous islands and rocks along its entire length. This part of Ungava Bay has not been surveyed and there may be many undetected offshore dangers.

**Jackson Island** (60°25'N., 64°53'W.), lying close off the SW point of Killinek Island, is separated from it on the N by Fox Harbor and on the E by Port Burwell. The island is about 1.5 miles long and 1 mile wide.

**Fox Harbor** (60°25'N., 64°52'W.) lies between Killinek Island and Jackson Island. A drying flat at its head separates it from Port Burwell. Harbor depths range from 36.6m in the entrance to 12.8m at its head. The settlement situated here was abandoned in 1978.

**Forbes Sound** (60°23'N., 64°50'W.) is entered between the SW point of Jackson Island and Cape William Smith, about 3 miles to the SSE. It extends SE for 3.5 miles to its junction with McLelan Strait.

An unsurveyed shoal, with a depth of 7.9m, lies in the middle of the entrance.

**Goddard Island** (60°22'N., 64°45'W.) lies 2.5 miles E of Cape William Smith in the entrance to Young Inlet. It is 1 mile long, 0.5 mile wide, and 61m high. Several islets lie off the N end of the island.

**14.4 Port Burwell** (60°25'N., 64°51'W.) (World Port Index No. 1220) is a small natural harbor lying between the E side of Jackson Island and the SW side of Killinek Island. The land in the vicinity of the harbor is rugged, with steep rocky cliffs from 30m to 152m high. Harbor depths range from 51.2m in the entrance to 27.4m near its head.

Killinek Coastal Radio Station has been established in the vicinity of Port Burwell. A framework beacon tower stands on an observation spot at the head of an inlet in the NE part of Port Burwell.

Shoal water extends 0.1 mile off the W side of the harbor; foul ground on which lie two rocks, awash, extends 0.15 mile S of a peninsula in the NW part of the harbor. There is more foul ground to the SE of these rocks, on which there is a rock almost awash at HW. This foul ground extends 0.1 mile from the E side of the harbor.

**Ice.**—The harbor is generally clear of ice by the end of July or the first week of August; the floes may drift back and forth with the winds and the tidal currents before clearing the area. Freeze-up usually occurs during the last half of November.

**Anchorage.**—Anchorage, protected from all but S winds, is available, in 29.3m, mud. Anchorage is also available 1 mile E of the Port Burwell entrance, 0.2 to 0.5 mile offshore, in 36.6m to 45.7m, fair holding ground; however the anchorage is open to the W and a heavy swell sets into the area with W winds.

**Directions.**—Three small stone cairns stand on the SW coast of Jackson Island but are difficult to distinguish against the rocky background. Without the aid of prominent marks, it is not easy to identify the entrance to Port Burwell.

A vessel approaching from the N is recommended to steer for a position 1 mile W of Jackson Island, close off which there is a small rock, 3m high. From this position, shape a course to pass midway between the S extremity of Jackson Island and a 7.9m shoal, 1 mile SSW. Care must be taken not to mistake Munro Harbor, on the SW side of Jackson Island, for Port Burwell, which lies 0.7 mile farther E.

Off the entrance to Munro Harbor, the framework beacon tower in Port Burwell can be seen on a bearing of 073°. Enter the harbor in mid-channel and proceed to the anchorage by favoring the E shore to avoid the shoal extending from the W entrance point.

A vessel approaching from the W is advised to steer for the land well N of Port Burwell, as the coast S is very foul and the water is deep close to the rocks, so that soundings give little warning. Make a landfall off the Button Islands and then proceed as directed above.

**14.5** Young Inlet (60°22'N., 64°45'W.) is entered close SE of Goddard Island. It extends SE for 5 miles. Depths range from 27.4 to 45.7m. Anchorage may be taken E of Goddard Island in the inlet entrance, in a depth of 31.1m.

Tidal ranges of 4 to 6.1m may be experienced in the inlet.

From Cape William Smith, the S entrance point of Forbes Sound, the coast trends SSW for 45 miles and then SSE for 16 miles to Alluviaq Fjord (Abloviak Fiord). This section of irregular coast, which is unsurveyed, is broken by bays and inlets and fronted with numerous rocks and islets. Vessels unfamiliar with the area should exercise extreme caution when navigating within 12 miles of this part of the coast.

**Abloviak Fiord** (Alluviaq Fjord) (59°30'N., 65°23'W.), the largest inlet along this stretch of coast, extends inland for 22 miles in a SE direction. It has not been sounded.

**Weymouth Inlet** (59°21'N., 65°28'W.), located 9 miles SW of Alluviaq Fjord, extends SE for about 9 miles. The approaches and entrance are heavily encumbered with islands and islets.

**Gregson Inlet** (59°10'N., 65°37'W.), 6 miles SSW of Weymouth Inlet, extends SSE for 8 miles. Davis Inlet, 7 miles long, lies 1.5 miles W of and parallel to Gregson Inlet.

**Cape Kattaktok** (59°16'N., 65°44'W.) is a low sharp point, fronted by islets and ledges, lying 3 miles WNW of the entrance to Davis Inlet.

**Keglo Bay** (59°06′N., 65°44′W.), 8 miles S of Cape Kattaktok, has an entrance 8 miles wide. Five miles inside the entrance it narrows and branches into two arms. One extends E for 8 miles; the other extends SE for 12 miles.

**Kikkertoksoak Island** (59°05'N., 59°52'W.) lies 3 miles W of the entrance to Keglo Bay. It is the largest in a small group of low-lying islands.

The **Korok River** (Riviere Koruc) (58°52'N., 66°00'W.) lies 12 miles SSW of Kikkertoksoak Island. Elson Point is its S entrance point. The river is 2 to 2.5 miles wide for 7 miles from its entrance.

**14.6** The **George River** (58°51'N., 66°12'W.) flows into Ungava Bay between Elson Point and Cape Naujaat, 10.5 miles to the W. Several dangerous rocks and shoals encumber the approach. The river follows a SSE direction for about 14 miles to a small cove on its E bank, where the settlement of Port-Nouveau-Quebec is situated. The river is navigable by small craft for a distance of 200 miles.

**Beacon Island** (58°53'N., 66°20'W.) lies 2.5 miles NNE of Cape Naujaat. It is the largest and N rocky islet of a group lying on the extensive, boulder-strewn, drying flat which forms the W entrance point of the George River. Many sunken rocks exist in the approaches to the George River. Rocks, which dry 3.5m and 1.6m and which break in rough seas at LW, lie about 2.7 miles NE and 3 miles ESE, respectively, of Beacon Island. Shoal banks, with least depths of 3.4m, extend into the river from the E and W sides of the entrance. A racon is mounted on a square skeleton tower situated on Beacon Island. The tower has a fluorescent orange rectangular daymark.

**14.7 Port-Nouveau-Quebec** (58°41'N., 65°56'W.) is an Inuit settlement. Supplies for the settlement are landed by small craft at a landing beach on the W side of the cove. There is a floating dock for small craft at the settlement.

**Ice.**—Freeze-up usually occurs about the end of December; breakup usually occurs around the first week in June.

**Tides—Currents.**—The tidal range at the George River is between 7.6m and 9.8m at springs and between 3.7m and 6.7m at neaps. Currents in the river are strong and dangerous, reaching 8 knots on the flood current and 10 knots on the ebb current. There are tide rips when the wind direction opposes the current.

**Depths—Limitations.**—The George River has not been sounded and dangerous depths may exist. Depths in the approaches are very irregular, ranging from 5.5 to 73m.

A drying rock, 0.3m high, lies about 0.2 mile SSE of the SE extremity of Cap Nuvukallak (58°42'N., 66°03'W.). A shoal depth of 7.3m lies 0.4 mile further SSE. A depth of 7.7m lies in The Narrows, about 2 miles SSE of the drying rock.

**Anchorage.**—Shallow draft vessels discharging petroleum products use an anchorage 0.5 mile NW of the SE entrance point to the cove. The current here runs strongly in a S direction at LW for about 3 hours. Little current was experienced after this period until 3 hours 30 minutes after HW at the entrance to the river, when the current runs strongly in a N direction.

An outer anchorage 0.3 mile SW of the inner anchorage was reported more satisfactory.

Anchorage is also available off the E side of Ford Island, about 8 miles upstream from the settlement. Depths of 1.8 to 2.1m have been reported close to this anchorage.

#### **Ungava Bay—Head**

**14.8** The head of Ungava Bay lies S of a line connecting Cap Naujaat, at the entrance to the George River, and Stony

Point, the S entrance point to Leaf Bay, about 69 miles to the W. This section of Ungava Bay has not been completely surveyed.

Two large rivers, the Riviere a la Baleine and the Koksoak River, flow into the head of the bay about 25 miles apart.

Fort Chimo (Kuujjuaq), a Hudson's Bay Company post, is the only settlement in the area. It is situated on the Koksoak River.

Between Cape Naujaat and the mouth of the Riviere a la Baleine, about 50 miles to the SW, the coast is generally low, with occasional rocky points and a few rocky islands along the shore. Inland the hills rise gradually to heights of nearly 305m.

From the mouth of the Koksoak River to Stony Point, about 40 miles NW, the land rises gradually into long rounded hills with heights of up to 61m.

**14.9** Cap Naujaat (58°51'N., 66°24'W.), lying 3 miles S of Beacon Island, forms the W entrance point to the George River.

Between Cape Naujaat and the Riviere a la Baleine, the coast line is broken by several bays formed at the mouths of rivers flowing into Ungava Bay. Drying mudflats strewn with boulders obstruct these bays.

**Cap Kernertut** (58°30'N., 66°57'W.), the W entrance point of the bay into which the Riviere Tunulic empties, is 55m high.

**Alukpaluk Bay** (58°25'N., 67°07'W.), 7 miles SW of Cape Kernertut, is fringed with drying flats and drying ledges extending seaward from both entrance points. The Riviere Tuctuc empties into the head of the bay.

The **Riviere a la Baleine** (58°15′N., 67°35′W.) flows into Ungava Bay, 11 miles SW of Alukpaluk Bay. The large bay at the mouth of the river is almost completely filled by Qikirtajuaq Island. Numerous islands and rocky ledges extend as far as 20 miles N and NE of the river mouth. The river has a width of 1 mile for a distance of 8 miles upstream, beyond this point there are rapids.

**Qikirtajuag Island** (Big Island) (58°20'N., 67°35'W.) is 6 miles long, 5 miles wide, and 61m high. Rocky ledges and islands extend 20 miles N from Big Island.

**14.10 Saeglorsoak Island** (58°33'N., 67°29'W.) lies 10 miles NNE of Qikirtajuaq Island. It is surrounded by drying rocky ledges. A dangerous sunken rock lies 13 miles NNE of Seaglorsoak Island; a 5.5m depth lies 4 miles farther NNW of the sunken rock.

**Pointe Tasker** (Tasker Point) (58°28'N., 67°45'W.) lies 5 miles NW of Qikirtajuaq Island. Shoals and drying ledges extend 3 miles N from the point.

The **Riviere False** (False River) (58°29'N., 67°50'W.) flows into the bay 2 miles W of Pointe Tasker. It is about 4 miles wide at its mouth. The Riviere False is so shallow it cannot be navigated even by small craft. It has been mistaken for the Koksoak River, which lies to the W.

**Pointe Qirniraujaq** (Congnarauya Point) (58°35'N., 68°00'W.), 10 miles NW of Pointe Tasker, is a low, dark poin,t with mud flats extending W and SE of the point. A rocky ledge, which dries 3m, lies 1 mile NE of the point. A racon is mounted on a square skeleton tower situated on the point.

**Pointe Aisavartalik** (58°32′N., 68°07′W.), 5 miles SW of Pointe Qirniraujaq, is the E entrance point of the Koksoak River. Extensive drying flats exist between these two points.

**The Wart** (58°31'N., 68°08'W.), a conspicuous sharp hill, 49m high, rises 0.7 mile S of Pointe Aisavartalik.

**Cap Inuksutujaq** (Beacon Point) (58°34'N., 68°12'W.), about 3 miles NW of Pointe Aisavartalik, forms the W entrance point of the Koksoak River. Drying mud flats and ledges extend off the point for more than 1 mile.

**14.11** The **Koksoak River** (Riviere Koksoak) (58°34'N., 68°09'W.) is entered between **Pointe Aisavartalik** and Cap Inuksutujuq through a mouth about 1.2 miles wide. The river is navigable to within 2 miles of Fort Chimo, 30 miles upstream. Depths vary considerably and in the upper reaches the depths are so shoal that they must be navigated between half tide and HW

In the approaches to the Koksoak River, there are several dangers that must be avoided before entering the river itself.

Above the narrows, the depths in the river are likely to change due to the action of ice and current and the movement of boulders on the river bed. Local knowledge is recommended.

**Caution Shoals** (58°36′N., 68°04′W.), with a depth of 5.2m, is an extensive shoal area lying N and W of Pointe Qirniraujaq. The 5m curve lies as far as 3.5 miles W of this point. There is a depth of 5.2m on the NW part of Caution Shoals, within 0.2 mile of the leading line.

**Springs Reef** (58°40'N., 68°03'W.) lies 5.2 miles NNW of Pointe Qirniraujaq and dries 2.4m. A large area of shoal water extends to the W of this reef and heavy tide rips occur in the vicinity.

**14.12 Octopus Reef** (58°40'N., 68°11'W.), 4 miles WSW of Springs Reef, is formed by several rocky ledges which dry. An extensive shoal area surrounds these ledges. Heavy tide rips occur in the vicinity.

Range lights, situated on Cap Inuksutujaq, in line bearing 220°, lead clear of the dangers in the approaches across the Koksoak River Range and to the intersection with the Koksoak River East Range. A 3.7m shoal lies 1.5 miles NW of the track, about 9 miles NNE of Pointe Qirniraujaq.

Koksoak River East Range is situated on the E bank of the river, 2.7 miles SSW of Anchor Island. These lights, in line bearing 189°30', lead to the intersection with Koksoak River Range.

A radar reflector beacon is situated 1.2 miles S of Cap Inuksutujuq.

The Koksoak River Range, on the W bank of the river 6 miles S of Cap Inuksutujaq, in line bearing 197°30', leads up the seaward reach of the river from its mouth. Both front and rear range structures have fluorescent orange daymarks.

Vessels approaching the Koksoak River are cautioned to stay in surveyed waters and on the range line. A depth of 3.7m lies 1.2 miles NW of the range line, 4.7 miles NE of Springs Reef. In the vicinity of Caution Shoals, vessels must not stray S of the range line.

Depths in the approaches to the Koksoak River at the head of Ungava Bay, ranging from 9 to 180m, are very irregular and

shoals other than those charted may exist. The reefs and shoals fronting the mouth of the river extend up to 15 miles to the NE.

The only named islands in the river between the entrance and The Elbow are mostly on the W side of the river. Edge Island lies 3 miles S of Schnak Cove. Mackays Island lies 1 mile SSW of Ile Hendry on the E side of the channel, about 10 miles above the narrows.

**14.13 Whales Head** (58°11'N., 68°19'W.) is a broad peninsula, 30m high, projecting 0.5 mile from the W bank of the river, 4.5 miles SSW of Mackays Island.

Chapel Hill, 1 mile ENE of Whales Head on the opposite bank of the river, is a conspicuous hill, 129m high. The abandoned town site of the original Fort Chimo is on the E side of the river, 2.5 miles SSW of Chapel Hill.

Two miles S of the abandoned town site, the river curves gradually to the SW. Several islands are located in this bend, which is known as The Elbow. Big Elbow Island, 1 mile long, 0.5 mile wide, and 54m high, is the largest. A large boulder is conspicuous on the NE side of the island.

**Fort Chimo** (Kuujjuaq) (58°06'N., 68°24'W.) (World Port Index No. 1210) is a settlement that includes a post office, Hudson's Bay Company store, a hospital, Anglican and Roman Catholic missions, a school, a meteorological station, and a detachment of the Quebec Provincial Police.

There are no repair facilities and food supplies are only sufficient for the local inhabitants. Fresh water is available from the river during the 3 hours before and after LW. Telephone communication and air transport are available.

**Tides—Currents.**—The mean and large tidal ranges are 8.8m and 12.5m at the river entrance, and about 4.6m and 6.1m at Fort Chimo. Tidal currents in The Narrows attain a rate of 6.5 knots. Northeast winds with an ebb tide cause heavy tide rips and overfalls. At spring tides, currents with rates of up to 12 knots have been reported.

**Ice.**—The river usually freezes over early in November and breakup occurs early in June.

**Pilotage.**—A local pilot is available for the passage to Fort Chimo. The pilot may board vessels off Schnak Cove, 0.8 mile E of the E entrance point, but as this anchorage is usually untenable due to strong erratic currents, vessels generally await the pilot offshore, about 1.6 miles S of Octopus Reef. Passage upstream is usually made about 3 hours before HW; the outbound passage is usually started at HHW.

Vessels with local knowledge may continue upstream and await the pilot at an anchorage about 5 miles beyond The Narrows.

**Anchorage.**—Anchorage is available between the NE end of Big Elbow Island and the E bank of the river, course stone bottom, good holding ground.

No anchorage in the river should be considered safe. Ships at anchor should be ready to get underway at any time.

**Directions.**—Vessels bound for Fort Chimo should approach the reef NE of the entrance to the Koksoak River at LW, when hazards to navigation are visible. Once the range lights on Cap Inuksutujaq have been sighted or the radar reflector picked up, a course of 220° should be set. This range leads into the mouth of the river in a least depth of 10m, but care must be taken to avoid shoals, with depths of 3.7m and less, lying 0.3 mile SE of the leading line. A 3.7m shoal lies 1.5

miles NW of the track, about 9 miles NNE of Pointe Qirniraujaq.

Ranges into the river have been established and are described in paragraph 14.12. Upon the approach to Cap Inuksutujaq, a range of 189°30' leading into the mouth of the river will become aligned. This range leads about mid-channel and provides a course for avoiding the shoals on either side of the entrance. Once inside the entrance, a 197°30' range leads further upriver.

**Caution.**—Because of strong currents and the close proximity of shoal water, mariners should exercise extreme caution at all stages of the tide when navigating on the daybeacon range which leads past Ile Hendry.

**14.14** From Cap Inuksutujaq to Stony Point, 25 miles to the NNW, the coast is broken by many bays, several of which dry at LW. Drying rocky ledges and mud flats front most of this part of the coast.

**Baie Seche** (58°34'N., 68°15'W.) dries completely. A small island and several drying ledges lie in the bay.

**Sham Bay** (58°36'N., 68°19'W.), an open bight 2 miles NNW of Baie Seche, also dries.

**Pauktorvik Island** (58°41'N., 68°19'W.), 5 miles N of Sham Bay, forms the S side of Sawtooth Bay. Numerous drying ledges and a few small islands lie on the mud flat between this island and Sham Bay.

# Ungava Bay—West Side—Leaf Bay to Hopes Advance Bay

**14.15** Northwest of Stony Point, the shore is generally rocky. Inland, the country rises gradually into long, rounded hills with elevations to 61m.

From Leaf Bay to Payne Bay, 65 miles NNW, the coast is broken by Ikattok Bay, Hopes Advance Bay, and several small bays. Numerous small islands, rocks, and drying ledges front this part of the coast, and shoal water extends offshore for 10 miles. No landing is possible except on the outer islands.

Between Payne Bay and Cape Hopes Advance, 65 miles to the N, the coast is broken by numerous wide and shallow bays which become extensive drying flats at LW. A wide fringe of rocky islands extends seaward off this coast. At LW, nearly all of these rocky islands are connected to each other and to the coast. Beyond the islands the water remains shallow over an uneven bottom for some distance offshore.

Passing vessels should stay at least 20 miles off this stretch of the coast.

**Leaf Bay** (58°58'N., 68°50'W.) is the outer part of a long indentation in the SW corner of Ungava Bay. It lies between the Gyrfalcon Islands on the N and the mainland on the S. At the W end, the bay narrows to form Smoky Narrows.

Leaf Bay is entered between Stony Point and Nipper Island, 10.5 miles to the NW. General depths in the bay range from 54.9 to 128m. Shoal water extends up to 2.5 miles offshore along the S shore of the bay, but on the N side deep water lies close off the islands.

**Stony Point** (58°54'N., 68°37'W.), the SE entrance point to Leaf Bay, lies 15 miles NW of Pauktorvik Island. The point, a rocky hill, is 61m high. At HW, the rocky knolls close SE become the Stony Islands. Shoal water extends 2 miles N of

Stony Point and as far W as False Point. Rocky areas, on which the sea breaks, extend 5 miles NW, N, NE, and E of the point.

**14.16 Bosuns Reef** (58°56'N., 68°25'W.), 5.7 miles ENE of Stony Point, dries 6m.

A large area of moderately shoal water, with depths to 27.4m, extends 10 miles N of Stony Point. Isolated depths of 11m or less lie up to 3 miles N, E, and S of Blind Reef.

**Blind Reef** (59°03'N., 68°40'W.) is a drying rocky ledge 8 miles NNW of Stony Point. A depth of 4.3m lies 1.5 miles NNE of Blind Reef, and a 6.1m depth lies 5.5 miles NW of Stony Point.

The **Gyrfalcon Islands** (59°03'N., 68°55'W.), a large group of islands about 10 miles in extent, lies in a general NE-SW direction on the N side of Leaf Bay. The rocky, barren islands vary in elevation from 15 to 91m and have cliffs facing the SW. Reefs fringe the low-lying outer islands. The mainland has the same general character and is so broken by bays that it is difficult to distinguish the islands from the mainland.

**Tiercel Island** (59°00'N., 69°02'W.), 82m high and the largest of the Gyrfalcon Islands, lies the farthest SW.

Nipper Island, a narrow island, 3.2 miles long and 59m high, lies 1.5 miles ENE of Tiercel Island. Nipper Reef, which dries 10.4m, lies 1 mile SE of Nipper Island. A beacon with a racon is operated from the E extremity of the S end of Nipper Island.

**Dome Island** (59°04'N., 68°51'W.), a small island 3 miles NE of Nipper Island, lies the farthest E. It is 14m high.

**Anchorage.**—Falcon Anchorage, the passage between Tiercel Island and Nipper Island, affords sheltered anchorage, in 21.9m, good holding ground, for vessels awaiting favorable tidal conditions to proceed through Leaf Passage. Reported tidal currents in the anchorage are not excessive.

**14.17 False Point** (58°54'N., 68°59'W.) lies 6.5 miles WSW of Flat Point. False Islet, a conspicuous islet 20m high, 1 mile NNE of False Point, is connected to False Point by a rocky ridge at LW.

**Wedgehead Point** (58°54'N., 69°15'W.), a conspicuous wedge-shaped point, 113m high, lies 8 miles W of False Point. It forms the S entrance point to Smoky Narrows.

**Henderson Point** (58°57'N., 69°14'W.), 3 miles NNE of Wedgehead Point, the N entrance point to Smoky Narrows, is also the W entrance point to Peregrine Sound.

Peregrine Sound, which separates Tiercel Island from the mainland to the W, has not been examined.

Talon Reefs, which lies close off the SW end of Tiercel Island, has two drying heads.

**Smoky Narrows** (58°55'N., 69°16'W.), the confined passage between Wedgehead Point and the Smoky Islands, 1.5 miles to the N, connects Leaf Bay with Leaf Basin. Tidal currents in the passage, which is only 0.7 mile wide between the 20m curves, attain velocities of 12 knots at spring tides and 4 knots at neaps. Passage through the narrows should only be attempted with a favorable tide.

**Leaf Passage** (58°50'N., 69°28'W.), the tidal passage between Smoky Narrows and Algerine Narrows, about 12 miles SW, has an average width of 3 miles, but extensive drying flats on both sides restrict the navigable channel to a width of 1.5 miles.

Depths in Leaf Passage range from 54.9 to 91.4m. Iron Shoal, with a least depth of 4.9m, is the only mid-channel danger. Vessels should pass S of the shoal.

**Fox Head** (58°52'N., 69°23'W.) lies 4 miles WSW of Wedgehead Point. From here the coast curves SW about 7 miles to Reef Point. Drying flats extend off most of the S side of Leaf Passage.

**Island Sound** (58°57'N., 69°18'W.) lies immediately W of Smoky Island. It is about 1 mile wide, but has not been fully examined.

**Boulder Bay** (58°57'N., 69°26'W.), close W of Island Sound, is obstructed by numerous islands and islets. It has not been examined.

**Iron Point** (58°53'N., 69°28'W.), the SW entrance point to Boulder Bay, has an elevation of 15m and lies 2.5 miles W of Fox Head.

Great Furrow, 2 miles WSW of Iron Point, is a conspicuous vein of yellow rock extending from the water's edge to the summit. Lesser Furrow, a small island with a similar feature, lies 1 mile to the S.

Algerine Narrows, the passage connecting Leaf Passage and Leaf Basin, is 3.3 miles long and nearly 1 mile wide between the 20m curves. From the E, the passage is entered between Bluff Point on the N and Reef Point on the S.

**14.18 Leaf Basin** (58°47'N., 69°43'W.) is entered between Algerine Point, the NE entrance point, and Mary Point, 2 miles to the SSE. This large saltwater basin is indented on all sides by long inlets and bays; extensive drying flats fringe the shore line. It extends W for about 8 miles to the mouth of the Leaf River.

Whaleback Reef (58°47'N., 69°40'W.), a drying reef, lies in mid-channel nearly 1 mile S of Algerine Point. Vessels pass N of the reef entering the basin.

Ice.—Open water occurs in Leaf Basin and Leaf Passage before Ungava Bay is free of ice; however, the strong tidal currents cause ice jams in the approaches. Passage into Leaf Passage is seldom possible before the middle of July. Freeze-up in Leaf Bay and Leaf Passage occurs later than in Leaf Basin, again due to the strong currents in these areas. Ice begins to form in Leaf Basin in early December, but not until late December in Leaf Passage and Leaf Bay, and stretches of water may remain open throughout the winter.

**Tides—Currents.**—There are very strong currents and dangerous eddies in Leaf Passage. The tidal currents in Algerine Narrows reach a maximum of 10 knots at springs and 3 knots at neaps, at approximately the time of local HW. Vessels are advised to make the passage on a favorable tide.

The tidal range in the basin is considered to be as high as any in the world, with a mean tide of 9.3m and a large tide of 14.8m. The range of tide is 5.1m at minimum neaps and 16.6m at maximum springs.

**North Arm** (58°48'N., 69°44'W.), immediately W of the entrance, is 5 miles wide between Algerine Point and Kennedy Point. The inlet has not been examined.

**Iles Radisson** (58°44'N., 69°41'W.), a group of seven islands and islets, lies on a drying bank 2 miles SW of Mary Point.

**Trading Post Cove** (58°44'N., 69°39'W.) lies E of Iles Radisson. Anchorage is available, in 21.9m, mud, 0.5 mile E of the largest Radisson Island, in the N section of the cove. A dry-

ing flat of mud and scattered boulders completely fills the S part of the cove.

**Centre Bay** (58°44'N., 69°44'W.) is entered between Copper Point on the E and Muddy Point, 3.5 miles to the W. Extensive drying flats front the shores of the bay, which extends SSW for about 4.5 miles.

Deep Harbor is entered between Copter Island and River Point, 2.5 miles to the W. Drying flats rim the bay which extends S for 6 miles. The Finger River flows into the head of the bay. Depths in the bay range from 18.3m to 45.7m, over a fairly regular bottom. The entrance to the bay is nearly 1 mile wide between the 20m curves.

**14.19 Bittern Islet** (58°47'N., 69°49'W.) lies 0.4 mile N of Copter Island, on the drying flat extending N from that island. Cone Island lies 1 mile to the E.

**Old Squaw Islet** (58°48'N., 69°52'W.) lies 1.5 miles NE of River Point, on the drying spit stretching NE from the point. Mandarin Islet lies on the same spit about midway between Old Squaw Islet and River Point.

**Anchorage.**—Deep Harbor is the most sheltered anchorage in Leaf Basin. Anchorage can be taken over most of the harbor, but the best anchorage is between Gauge Point and Rowe Island, in 31.1m, mud, good holding ground.

**Directions.**—From position 59°07'N, 68°43'W, steer 204° for 9.1 miles, passing 2.7 miles off Dome Islet, to a position with the E extremity of Nipper Island bearing 320°, 2.2 miles distant. Then steer 249° for 5 miles to a position with False Islet bearing 159°, 1.6 miles distant. The summit of Wedgehead Point should bear dead ahead on this course. Then steer 258° for 9.1 miles to a position 0.5 mile S of the Smoky Islands group at the entrance to Leaf Passage. This is the recommended deep water track.

An alternative track, with a least depth of 9.1m, is from a position bearing about 046°, 10 miles from Stony Point. Steer 255° for 19 miles to a position 1 mile N of False Islet. Then steer 262° into Smoky Narrows.

Due to the strong tidal currents, the passage into Leaf Basin must be made on a favorable tide. Vessels awaiting a favorable tide anchor in Falcon Anchorage. When proceeding into Falcon Anchorage, course should be altered to 320° when Flat Point bears 140°, about 0.5 mile W of the S end of Nipper Island.

A least depth of 54.9m can be carried from the E entrance to Smoky Narrows into Leaf Basin.

**14.20** Between Leaf Bay and Payne Bay, 65 miles to the NNW, the coast is broken by Ikattok Bay, Hopes Advance Bay, and several smaller bays. Numerous small islands, rocks, and drying ledges lie along this section of the coast. In places, depths of less than 18.3m extend up to 15 miles offshore.

No landing is possible, except on the outer islands.

**Ikattok Bay** (59°10'N., 69°23'W.) lies 15 miles NNW of Leaf Bay; it has not been examined. Cone Island, a conspicuous island, 49m high, lies near the middle of the entrance to the bay. An extensive foul area, which has not been completely examined, lies 5 miles NE of Cone Island.

**Nanertak Island** (59°19'N., 69°09'W.), 14m high, lies 6 miles N of Cone Island, and marks the N limit of Nanertak Reefs.

Nanertak Reefs, drying rocky ledges, extend from Cone Island to Nanertak Island, for a distance of about 6 miles. The reefs lie parallel to the shore, about 3 miles off, in a NNW-SSE direction.

**Sentinel Reef** (59°16'N., 68°49'W.), which dries 1.2m, lies 11 miles ENE of Cone Island; it is the easternmost danger off this part of the coast.

**Takiyok Point** (59°20'N., 69°15'W.), a broad peninsula 44m high, 6 miles N of Ikattok Bay, forms the E side of Anse de Villiers. Pointe De Villiers is the NW extremity of Takiyok Point

**Anse de Villiers** (59°20'N., 69°19'W.) is a small, very shallow bay lying immediately W of Takiyok Point.

**Caution.**—Takiyok Reef lies 5 miles NE of Takiyok Point. It dries 5m.

Sawtooth Reef dries 4m, 2 miles NW of Takiyok Reef.

Black Rock is conspicuous 3 miles NNW of Pointe de Villiers. It dries 12m.

## **Ungava Bay—West Side—Hopes Advance Bay to the Elder Islands**

**14.21 Hopes Advance Bay** (59°22'N., 69°26'W.) is entered between Gable Point and Alle Island, 3.5 miles to the WNW. The Riviere au Chien Rouge (Ford River) flows into the head of the bay, which extends inland for 9 miles in a WSW direction. Drying flats fringe the shoreline, reducing the navigable width of the entrance to 0.7 miles. Depths within the bay are irregular.

Gable Point, the SE entrance point to the bay, lies 4.5 miles WNW of Pointe de Villiers. It is 45m high.

Alle Island, 8m high, lies on the drying, boulder-strewn flat extending from the shore.

Alle Reefs, an extensive area of drying reefs, lies on the N side of the outer part of Hopes Advance Bay between Alle Island and Breakwater Point, 3 miles to the SW.

Funnel Cove lies between Range Point on the E and Apex Hill, 3 miles to the WSW. There are depths of 21.9m in the outer part of the cove, but most of it dries at LW. A shallow spit projects 1 mile NNW from near the E entrance to the cove.

Merganser Cove lies on the N side of Hopes Advance Bay between Breakwater Point and Merganser Point, 1.5 miles to the W. The cove dries almost completely at LW. There are important iron ore deposits in this area. At one time, mining operations were carried on in the vicinity.

**Ice.**—The navigation season is similar to other ports on this coast, however as there is less movement of ice in the inner harbor than in Payne Bay and Leaf Bay, ice will begin to form earlier in the season.

**Tides—Currents.**—The tidal range at Hopes Advance Bay is 8.4m to a maximum of 13.4m at spring tides. Five miles offshore, the tidal current is fairly strong, but in the channel from Gable Point to Merganser Cove, the maximum velocity observed was less than 2 knots. Vessels can enter and leave at any phase of the tide.

**Depths—Limitations.**—The channel from Gable Point to Merganser Cove, which has been wire-dragged to a least depth of 10.9m, is 485m wide at its narrowest point.

A reef, with a depth of 1.8m, lies near mid-channel, 1 mile SW of Breakwater Point.

**Anchorage.**—Sheltered anchorage, protected from heavy swell, is available 0.7 mile SW of Breakwater Point, in 27.4m, mud bottom, good holding ground with ample swinging room.

**Directions.**—Vessels are cautioned that the appearance of the approaches to Hopes Advance Bay can be deceptive, due to the magnitude of the tidal range, which at HW and LW present completely different aspects of the coastal area.

Several good landmarks are available for visual fixing including Cove Island, Nanertak Island, Gable Point, Young Island, and Lookout Island. Apex Hill, at the head of the bay, is cone-shaped and conspicuous. Black Rock, NE of Gable Point, is visible almost all the time and is also conspicuous. A landfall can usually be made while still in sight of Akpatok Island.

From position 59°37'N, 68°57'W, a course of 228° should be steered for 21.7 miles, passing 1.5 miles to seaward of the Barrier Shoals, to a position abeam of Gable Point, distant 1.2 miles

The track is indicated by leading beacons, in line bearing 228°, situated SW of Range Point. Vessels may then steer 239° with the leading beacons on Apex Hill ahead, for 3 miles when course can be altered to 258° with the beacons on Gable Point astern, in line bearing 078°. When Breakwater Point bears 345°, alter course to 239°, with the leading beacons ahead on that bearing, for the anchorage.

**14.22** Between Hopes Advance Bay and the mouth of the Payne River, the moderately irregular coast is fronted by numerous offshore dangers.

**False Bight** (59°30'N., 69°35'W.) curves inland between Breakwater Point and a point 15 miles to the NNE. The bight is heavily encumbered with shoals and drying reefs, and most of it dries at LW. The Riviere Saint-Fond discharges over the flats at the head of the bay.

The **Low Islands** (59°31'N., 69°22'W.), a group of small islands, islets, and drying reefs, stretch across the entrance to False Bight in a NE-SW direction.

Young Island, 11m high, lies at the SW end of the chain.

Lookout Island, the largest of a group of four small islands, lies on a drying reef at the NE end of the group.

Buttress Island, 23m high, lies 3 miles NW of Lookout Island, and Sandpiper Islet, 3.5 miles NE of the same island, has a height of 8m.

**Baie de Bonnard** (59°41'N., 69°35'W.) lies 5 miles N of False Bight. The Riviere Lefroy empties over the drying flats which almost fill the small bay.

**Baie Brochant** (59°54'N., 69°40'W.), located 9 miles N of Baie de Bonnard, extends inland for 4.5 miles. The bay has not been examined.

**Ivik Island** (59°55′N., 69°40′W.), on the N side of Baie Brochant, is separated from the mainland by Illusion Sound. The passage is 0.5 mile wide. Drying flats completely fill the N entrance, which is the only part of the passage that has been examined.

**Kidlikpait Islet** (Kitdliat Islet) lies 1.5 miles NE of Ivik Island, on the N edge of the drying flat extending NE from the islet.

A racon is mounted on a square skeleton tower, with a radar reflector, situated on Kidlikpait Islet.

**Kidlikpait Reefs** (Kitdliat Reefs), which dry, extend 2 miles NE beyond the islet.

**Tuwak Reefs** (59°55'N., 69°27'W.), two drying reefs, lie 6 miles E of Ivik Island.

14.23 Payne Bay (60°00'N., 69°40'W.) is entered between Kidlikpait Islet (Kitdliat Islet) and Ranger Island, 4 miles to the N. Both entrance points lie at the outer ends of extensive drying flats. The Riviere Arnaud (Payne River), described in paragraph 14.24, flows into the SW corner of the bay, 4 miles W of Kidlikpait Island. Kangirsuk (Bellin) (Payne Bay), a settlement, is located 8 miles upstream from the mouth of the river

Kyak Bay and Tuvalik Bay break the shoreline along the NW side of Payne Bay.

**Tides—Currents.**—High water in Payne Basin occurs 1 hour after HW outside the river entrance. Tides in the basin range from 6.9 to 10.7m.

Between Payne Bay and Payne Basin, the tidal current sets W from 4 hours before to 1 hour 30 minutes after HW at Diana Bay. At the mouth of the Riviere Arnaud, both the flood and ebb currents attain velocities up to 7.5 knots at springs. In Nakertok Narrows, the maximum velocity of the flood current is 8.5 knots, while the maximum velocity of the ebb current is 7.5 knots.

The entire passage from the river entrance to the basin must be made on a favorable tide, due to the eddies and overfalls which occur when the tidal currents are running at their strongest.

**Ice.**—The river is usually ice-free by June, but the tides may carry the ice back and forth from Payne Bay until early July. Freeze-up generally occurs about mid-December in Payne Bay.

**Depths—Limitations.**—Depths along the recommended track in the approaches and the entrance to the river have been wire-dragged to a depth of 4.9m. From the entrance to Pikiyulik Island, the general depths range from 14.6 to 31.1m. The recommended track through Nakertok Narrows, which leads S of Pikiyulik Island into Payne Basin, has been wire-dragged to a depth of 6.1m. Mikitok Narrows, the passage N of Pikiyulik Island, has not been wire-dragged.

**Aspect.**—Alakakvik Summit (Altavik Summit), 130m high, lies 3 miles NW of Savik Point.

Beacons have been established on the shores of Tuvalik Bay marking the track leading to the anchorage.

Two beacons, in line bearing 302°, are situated 0.7 mile N of Savik Point. These beacons lead into the entrance to Tuvalik Bay, in a least depth of 13.7m. Another pair of beacons, 1 mile NNW of Tuvalik Point, in line bearing 013°, lead to the anchorage.

Beacons marking the recommended track into the Riviere Arnaud (Payne River) and then to the anchorage off of Kanik Cove are situated on Entrance Point, the Sitamat Islands, Lodestone Island, and on the N shore of Payne Basin, 0.5 mile E of Kanik Cove.

Weather and ice conditions can have a damaging effect on these beacons and, unless they are maintained, their presence or condition cannot be relied upon.

**Pilotage.**—A pilot may be obtained by advising the Hudson's Bay Company of the ship's ETA, 48 hours in advance, through one of the coast radio stations in Hudson Strait. The pilot usually awaits a ship's arrival off Napatak Island in Kyak Bay.

**14.24 Kyak Bay** (60°02'N., 69°45'W.), on the NW side of Payne Bay, dries completely, up to 5m at LW.

**Tuvalik Bay** (60°03'N., 69°41'W.), entered between Savik Point and Tuvalik Point, lies immediately E of Kyak Bay. The W half of Tuvalik Bay is completely dry at LW.

**Anchorage.**—Anchorage is available at the head of Tuvalik Bay, in 14.6m, rock with patches of mud, 0.6 mile W of Tuvalik Point. The anchorage is exposed to the S and sheltered only by drying flats on the E.

Off Savik Point, the bottom affords poor holding ground and tidal currents of more than 4 knots have been reported.

**Nanuk Islet** (60°02'N., 69°42'W.), 17m high, lies on a drying ledge 0.8 mile SE of Savik Point.

**Agvik Island** (Arvik Island) (60°01'N., 09°43'W.), 32m high, lies 0.7 mile SW of Nanuk Islet with another small islet close SE.

**Entrance Point** (59°58'N., 69°43'W.), 15m high, forms the SE entrance point of the Riviere Arnaud.

**Sakvak Point** (Sarfak Point) (59°59'N., 69°47'W.), 44m high, forms the NW entrance point to the Riviere Arnaud, 2 miles NW of Entrance Point.

The **Riviere Arnaud** (Payne River) (59°59'N., 69°46'W.) leads W from Payne Bay for 6.5 miles to the entrance of Payne Basin. The river is navigable by vessels of limited draft for 35 miles, but it has not been surveyed beyond Payne Basin.

**Pikiyulik Island** (60°00'N., 69°55'W.), located in midchannel 4 miles W of Sakvak Point, divides the river into two channels. The fairway leads through Nakertok Narrows, the S passage, which has been wire-dragged to a depth of 6.1m. Mikitok Narrows, the N channel, has not been surveyed.

Makok Reefs (Malkok Reefs), located 0.5 mile S of Pikiyulik Island on the S side of Nakertok Narrows, dry up to 9m. Numerous eddies and tide rips occur in the vicinity of the shoal.

**Lodestone Island** (59°58'N., 69°56'W.) lies 1.2 miles SW of Pikiyulik Island on the drying flat extending N from the S shore.

Lodestone Reef, which dries to 9m, lies 0.4 mile NW of Lodestone Island. Several other islands lie on the drying flat in this general area.

**14.25 Payne Basin** (60°00'N., 70°02'W.) is entered between Lodestone Reef and a point 1 mile to the N. The basin is about 4 miles long and 3 miles wide. Depths range from 25.6 to 73m.

**Basking Island** (59°59'N., 70°05'W.), 37m high, lies in the middle of the basin, 3.2 miles W of Lodestone Reef.

**Kanik Cove** (60°01'N., 70°01'W.) is located on the N shore of Payne Basin, 2.5 miles NW of Lodestone Island. The cove dries completely at LW. An isolated shoal, with a depth of 3m, lies 0.9 mile SSW of Kanik Cove.

Kangirsuk Settlement, on the W shore of Kanik Cove, is the site of a Hudson's Bay Company store which operates a private radiotelephone station and also maintains a first aid post. There are scheduled and chartered flights from Fort Chimo.

**Anchorage.**—Sheltered anchorage is available, in 21.9m, mud, 0.5 mile SE of the Hudson's Bay Company store. Anchorage can also be taken off the S shore of the basin opposite the settlement, in 23.7 to 27.1m, sand and gravel.

Tidal currents are no problem in these anchorages which are out of the full strength of the tidal currents.

**14.26 Guillemot Shoal** (60°04'N., 69°28'W.), 5 miles E of Tuvalik Point, has a least depth of 5.5m. Another 5.5m depth lies 2 miles W of Guillemot Shoal.

The **Five Islands** (60°10'N., 69°27'W.), a chain of small islands lying in a general NE-SW direction, are located 6 miles N of Guillemot Shoal. The NE island is 35m high. The SW island in the group is 17m high.

**Kuglukvik Point** (60°08'N., 69°36'W.), 5 miles NNE of Tuvalik Point, is actually a group of islands joined to the mainland by a drying flat. The largest island is 52m high.

Sugar Loaf, a conspicuous hill, rises to a height of 94m, 2 miles N of Kuglukvik Point.

The **Plover Islands** (60°18′N., 69°37′W.), a group of rocks and islands, lie 2 miles offshore about 4 miles N of Sugar Loaf. They extend NW about 8 miles parallel to the shore.

**Caution.**—A considerable magnetic disturbance is reported to exist about 4 miles off the Plover Islands.

**Dry Bay** (60°25'N., 69°45'W.), located 7 miles NNW of Sugar Loaf, dries completely at LW. An unnamed island, 32m high, lies 11 miles E of Dry Bay.

**Baie de Roziere** (60°31'N., 69°45'W.), an open bight, breaks the coast 1.5 miles N of Dry Bay.

The **Elder Islands** (60°52'N., 69°20'W.), a large group of islands, islets, and rocks about 5 miles long, lie in a general NNW-SSE direction, 15 miles SSE of Cape Hopes Advance.